



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/760,015	01/16/2004	Ryan D. McMurtrey	B-347	8514
7590 01/18/2006 Stephen R. Christian BBWI PO BOX 1625 IDAHO FALLS, ID 83415-3899			EXAMINER KRISHNAMURTHY, RAMESH	
			ART UNIT 3753	PAPER NUMBER

DATE MAILED: 01/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/760,015

Applicant(s)

MCMURTREY ET AL.

Examiner

Ramesh Krishnamurthy

Art Unit

3753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 53 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 53 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 3753

This office action is responsive to communications filed 01/16/2004.

Claims 1 – 53 are pending.

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1 – 20, 31 – 43 and 49 – 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keller (US 4,465,091) in view of Stratienko (US 4,114,469).

Keller discloses a fluid flow control device comprising: A valve having a fluid inlet (12) and a fluid outlet (13) with a flow path defined therebetween, a valve seat (14), a valve stem (17) threadedly engaged with the valve, with the valve stem cooperating with the valve seat by advancing or backing-off therefrom responsive to rotation of the valve stem to which is coupled a gear member (29) which in turn is coupled to an electrical motor (32) that is configured to be operated by remote control (Col. 2, line 59 – 60).

The patent to Keller discloses the claimed invention with the exception of explicitly disclosing a linear positioning member engaging the gear member.

Stratienko discloses a linear positioning member in the form of a worm gear 942) that is coupled to the gear of the valve shaft for the purpose of obtaining efficient power transmission from the motor to the valve shaft.

It would have been obvious to one ordinary skill in the art at the time the invention was made to have provided in Keller a linear positioning member that is coupled to the gear of the valve shaft for the purpose of obtaining efficient power transmission from the motor to the valve shaft, as recognized by Stratienko.

It is noted that Stratienko discloses the worm gear i.e. linear positioning member to be displaced along a second axis with the gear member rotating about a first axis. It is further noted that both Keller and Stratienko disclose the gear member and worm gear to comprise metal which here is taken to include all known metals including the both carbon steel and brass. Also the combination of Keller and Stratienko is capable of handling any fluid including, compressible, incompressible and that undergoing a phase change. As for the flow coefficient values recited the combination of Keller and Stratienko is configured to have the recited values of the flow coefficient. Also the recited values of the current in claim 7 correspond to well known standard in the valve art. The drive motor (32) in Keller is taken here to include all known kinds of electric motor including direct current driven stepper motor. Position sensors are disclosed in Stratienko (Col. 3, lines 4 –19).

It is further noted that the combination of Keller and Stratienko necessarily performs the method recited in claims 41 – 43 and 49 – 53 in its usual and normal operation.

4. Claims 21 – 27 and 44 – 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Keller and Stratienko as applied to claims 1 – 20, 31 – 43 and 49 – 53 above, and further in view of JP 07012689.

The combination of Keller and Stratienko discloses the claimed invention with the exception of explicitly disclosing the controller to comprise a P.I.D. controller and/or sensors operably connected to the controller.

The document JP 07012689 discloses that it is known in the art to employ a P.I.D. controller and/or sensors operably connected to the controller for the purpose of automatically controlling the flow based on desired sensed parameter values.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided in the combination of Keller and Stratienko a controller that comprises a P.I.D. controller and/or sensors operably connected to the controller for the purpose of automatically controlling the flow based on desired sensed parameter values, as recognized by JP 07012689.

5. Claims 28 - 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Keller and Stratienko as applied to claims 1 – 20, 31 – 43 and 49 – 53 above, and further in view Weissgerber et al. (US 6,712,085).

The combination of Keller and Stratienko discloses the claimed invention with the exception of explicitly disclosing a pump that is configured to provide a supply of flow through the valve.

Weissgerber et al. discloses a fluid flow system wherein a pump (21) is operably connected to a controller (27) that controls the pump for providing a desired fluid through the system.

It would have been obvious to one ordinary skill in the art at the time the invention was made to have provided in the combination of Keller and Stratienko a pump that is configured to provide a supply of flow through the valve, for the purpose of providing a controlled fluid flow therethrough, as recognized by Weissgerber et al..

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

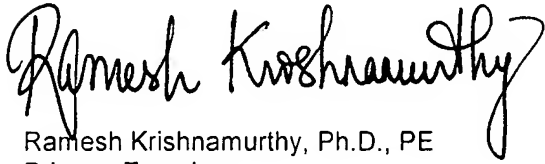
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramesh Krishnamurthy whose telephone number is (571) 272 – 4914. The examiner can normally be reached on Monday - Friday from 10:00 AM to 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eric Keasel, can be reached on (571) 272 – 4929. The fax phone number for the organization where this application or proceeding is assigned is (571) 273 – 8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

Art Unit: 3753

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, reading "Ramesh Krishnamurthy". The signature is fluid and cursive, with the first letter of each word being capitalized and prominent.

Ramesh Krishnamurthy, Ph.D., PE
Primary Examiner
Art Unit 3753